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ABSTRACT
                A survey sought to discover whether the beliefs about
education held by teacher education candidates differed from those of
their non-teaching counterparts. Responses to the "MSU Educational
Beliefs Inventory" were obtained from 391 teacher candidates and 232
students enrolled in an introductory communications class at Michigan
State University. The questionnaire contained 59 statements that
reflect beliefs about students, curriculum, social milieus, and
teachers. A fifth category was included to capture beliefs about
pedagogy. An analysis of resulting data indicated that educational
beliefs held by students entering teacher preparation programs are
different from college students in general. Non-education majors were
seen as more likely than teacher candidates to "take a stand" on
educational issues. The two groups seemed to agree most with respect
to their beliefs abut students and least in their beliefs about
teachers and proposals to raise teaching standards. Teacher
candidates were also somewhat more likely to agree with "expert"
opinion than their non-teaching counterparts. A copy of the inventory
is appended with responses from each group tabulated. (JD)

Research and Evaluation in Teacher Education

Program Evaluation Series No. 3

COMPARING EDUCATIONAL BELIEFS
OF TEACHER CANDIDATES AND THEIR
NON-TEACHING COUNTERPARTS

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Department of Teacher Education
and
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Comparing Educational Beliefs of Teacher Candidates
and Their Non-Teaching Counterparts

> "...teachers' characteristic beliefs about children and
> learning have pervasive effects on their behavior,
> influencing the learning environment that they create for
> children and for themselves." (Bussis, Chittenden, and
> Amarel, 1976, p. 16)

There is general agreement that to function as professionals, teachers need

a thorough understanding of subjects to be taught, a solid general education, a

firm command of professional knowledge, and competence in delivering classroom

instruction. However, it is not always recognized that during the course of

their professional training, teachers also need to develop appropriate

orientations to teaching (i.e., predispositions and beliefs that will lead them

to make educationally sound decisions). Orientations to teaching include

general predispositions such as perceptions of the role of schools within a

larger social context and a variety of educational beliefs including beliefs

about students, the curriculum, and pedagogy.

There is considerable support for the premise that orientations to teaching

influence teacher decisions and actions (e.g., Dweck & Bempechat, 1983, Fisher,

et al., 1978, and Brophy & Good, 1974). For example, Dweck and Bempechat (1983)

have shown that teachers who believe that childrens' intellectual competence is

fixed rather than modifiable are likely to categorize children in terms of their

academic ability and to engage in other behaviors that are counterproductive to

learning such as shielding children from making errors. Because predispositions

and beliefs shape teacher decisions and actions, efforts to identify and mold

correct orientations to teaching should be an explicit component of teacher

education curricula.

Any serious attempt to influence educational orientations should begin with an assessment of how students entering teacher preparation programs think about teaching. With this goal in mind, students entering one of Michigan State University's (MSU) five alternative teacher preparation programs, complete an inventory of educational beliefs. In an effort to provide a comparative baseline for interpreting the results of these surveys, we recently asked non-education majors enrolled in an introductory communication course to complete the same inventory.

Although our primary intent was to gain a better understanding of the entering characteristics of our students, the survey of non-education majors also provided data that speak to a more basic question regarding the development of orientations to teaching; namely, "Are the educational beliefs of those entering teacher education programs different from college students in general?" In other words, by the time teacher candidates enroll in their first education course, have they already begun to think about education in ways that differ from their non-teaching counterparts? The purpose of this paper is to provide a summary of analyses that focused on this question.

Procedure

Sample

The group that will be labeled "Teacher Candidates" (TC's) in this report represents a subset of 391 students who completed the "MSU Educational Beliefs Inventory" (Freeman et al., 1982) while enrolled in the first course required of all teacher candidates at Michigan State University. Surveys were distributed near the end of the first class meeting and returned during the first week of the course. The final sample was determined by a branching item on the survey which asked students to describe where teaching fits into their current career

plans. Only those students who responded that "classroom teaching is the only career I am considering at this point in time" or "classroom teaching is my first choice of the careers I am considering" were included in the sample.

The "Non-teachers" (NT's) were selected from a sample of 232 students enrolled in an introductory communications class at MSU during the winter term of 1984. Students in this course are preparing for a wide range of careers including business, communication arts, and the professions. These students completed the "MSU Educational Beliefs Inventory" at prearranged times and sites in the building which houses the College of Education. On the basis of responses to the question, "What career do you intend to pursue?," a pure "Non-teacher" sample was selected (i.e., students who mentioned anything even remotely connected with education were removed from the sample).

Preliminary analyses indicated a significant difference in the "current class status" of the two groups. To reduce this possible source of confounding, all freshmen were removed from the non-teacher sample and all "post B.A., B.S. degree" students were dropped from the teacher candidate sample before further comparisons were made. The final non-teaching sample consisted of 146 individuals: 74 sophomores, 51 juniors, and 21 seniors. The final teacher candidate sample included 258 students: 79 sophomores, 143 juniors, and 36 seniors.

Preliminary analyses also suggested that the proportion of males and females in the two samples was significantly different. Females represented 75% of the teacher candidate sample and only 56% of the non-teacher sample. Nevertheless, the authors deliberately elected not to control for this factor even though it may occasionally contribute to differences in response patterns across the two groups. According to results from previous surveys, approximately three-fourths of the students entering MSU's teacher preparation

programs are females, a characteristic we thought best to preserve for the purpose of this study.

The Instrument

While there are many ways to assess teachers' subject matter knowledge, professional knowledge, and even competence in delivering classroom instruction, little time and attention has been devoted to the development of measures of orientations to teaching. The "MSU Educational Beliefs Inventory" (Freeman & Undergraduate Program Evaluation Committee, 1982) used in this study is one of a relatively small number of instruments of this type. Following comprehensive reviews by various groups of faculty and students, the instrument has undergone several stages of refinement. The current version includes 59 statements that reflect a "representative sample" of beliefs for each of Schwab's (1960) four commonplaces of education (students, curriculum, social milieu, and teachers), plus a fifth category designed to capture beliefs about pedagogy. Responses to each belief statement are recorded on a 5-point Likert scale, where 1 = strongly agree, 3 = neither agree nor disagree, and 5 = strongly disagree. The appendix provides a complete description of the instrument.

Results

Classifying Group Differences as Large, Moderate, or Small

In this study, the results of Chi-square tests were rarely used in the traditional sense of hypothesis testing. Rather, the numerical values resulting from these tests almost always served as item-level indices of the magnitude of differences in response patterns of the two groups and were used to sort belief

statements into one of three levels; namely, <u>large</u> differences between groups
(probability associated with Chi-squared statistic is less than .01); <u>moderate</u>
differences (.01< p <.33); and <u>small or negligible</u> differences (p >.33).

Are Teacher Candidates' Beliefs Different from Those of
College Students in General?

The appendix provides a comprehensive description of the pattern of
teacher-candidate and non-teacher responses to each of the 59 statements on the
MSU Educational Beliefs Inventory. During our initial review of these data, we
were struck by the sheer number of times teacher candidates' responses differed
from those of their non-teaching counterparts. Using the above decision rules
as a guide there were 18 large differences, 22 moderate differences, and 19
negligible differences in the response patterns of the two groups. We were also
struck by the magnitude of some of the differences. For example, whereas 46% of
the students in the non-teaching group believed that "Parents are generally
supportive of teachers and schools;" only 10% of the teacher candidates agreed
with this statement. In brief, even though the members of both groups had been
students of the American school system for 14 or more years, their educational
beliefs were clearly different.

There are at least two plausible explanations for these findings. First,
it is possible that differences between teacher candidates and non-education
majors resulted from the fact that those who seek careers in teaching think
about education and teaching in ways that are different from those who do not
(i.e., entering teacher candidates are a self-selected group in terms of their
educational beliefs).

Alternatively, these findings may indicate that educational beliefs undergo

a developmental process that begins at the time an individual decides to become a teacher. According to the "developmental" hypothesis, individuals who decide to pursue a career in teaching may begin to attend to different aspects of the K-12 school environment and/or to think about teaching in different ways from those who do not make this career decision. As a test of one version of the developmental hypothesis, Chi-square tests were conducted of differences among those who decided to become teachers at three distinct points in time -before, during, and after completing high school. The results showed that differences in educational beliefs among these three were infrequent and inconsistent in patterns of variation. Therefore, if developmental changes in beliefs do occur, these changes are most likely to take place soon after individuals decide to become teachers and will be prompted by a relatively strong sense of identification with the role of a teacher.

Taking a Stand

By assuming that individuals who have relatively strong preconceived notions or commitments to a particular point of view are not likely to check the "neutral" response for a given belief statement, it is possible to assess a groups' willingness to "take a stand" on the issue reflected in each belief statement. The lower the proportion of "neutral" responses, the greater the groups' apparent willingness to make a public statement of their position.

As portrayed in the appendix, the proportion of teacher candidates who checked the "neutral" response was at least five percentage points higher than the corresponding figure for the non-teaching majors for 23 of the 59 statements on the beliefs inventory. According to this same decision rule, non-education majors were more likely to make neutral responses for only four of the 59 statements. Thus, it is evident that the non-teacher group was generally more

willing to "take a stand" on educational issues than was true for those pursuing careers as teachers. The four statements for which the teacher candidates were more willing to express their opinions are noted in Table 1.

/// Insert Table 1 about here ///

There are two quite different ways to account for these findings. The first interpretation suggests that the differences are "real." Perhaps, as a group, teacher candidates are, in fact, more tentative than their non-teaching counterparts in taking a stand on educational matters. This may be because they are more aware of the complexity of many of these issues. On the other hand, it is also possible that this difference may have resulted from the context of the study. Because the survey was conducted by faculty in the College of Education and not in the students' major field of study, members of the non-teaching group may have been less involved in the task and felt they had less to lose by expressing their opinions on these issues. Unfortunately, the design of the study does not provide a test of the validity of either of these interpretations.

Attempts to Provide a Parsimonious Description of the Nature of Differences in Educational Beliefs Held By Entering Teacher Candidates and Non-Teaching Majors:

We have already provided evidence that the educational beliefs of teacher candidates are different from those of their non-teacher counterparts. In an attemp' to provide a parsimonious description of the nature of these differences, the authors locked at how the two groups varied across three general dimensions: (a) different categories of beliefs, (b) comparisons with "expert" opinions, and (c) reactions to proposals for raising academic standards.

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Group Differences Across Different Categories of Beliefs: Table 2 shows the
range of differences between the teacher candidates and the non-teacher samples
for the five categories of beliefs considered in the "MSU Inventory of
Educational Beliefs." As these data indicate, the two groups seemed to agree
most with respect to their beliefs about "students" and least in regard to their
beliefs about "teachers." Whereas there were large differences for only two of
the thirteen "student" items, the probability values associated with the Chi-
square test for four of the nine "teacher" beliefs were less than .01.

/// Insert Table 2 about here ///

To provide a clearer sense of these results, the four "teacher"
belief statements that prompted large between-group differences are
summarized in Table 3. As these data show, members of the non-teaching
group were more likely to agree that schools should only hire those
teachers who have passed state or national teacher exams, that success
in teaching is directly related to the number of subject matter courses
a teacher has completed, and that the ability to promote academic
achievement is the most important measure of a good teacher. On the
other hand, teacher candidates were more likely to agree that one must
be an enthusiastic, life-long learner to be a good teacher.

/// Insert Table 3 about here ///

The only beliefs about students on which the two groups differed
focused on the "heredity-environment" controversy regarding the source
of human intelligence and the issue of special treatment for gifted
students. Whereas 56% of the non-teachers believed that "A student's

overall level of intelligence is determined primarily by the environment," only 44% of the teacher candidates agreed with this statement. The proportion of non-teachers (40%) who agreed that "Gifted students can be best served·in special schools or centers," was nearly double the corresponding percentage of entering teacher candidates (21%).

Comparisons With "Expert Opinions": During the process of developing one of the earlier drafts of the MSU Educational Beliefs Inventory, 50 teacher education faculty members made two judgments regarding each belief statement: (1) According to the overall goals of your program, how should graduates respond to each statement - should they agree, disagree, or express their own opinion? and (2) How important is it that graduates have developed this belief?* Responses to the second question were recorded on a 5-point scale from 1 = unimportant to 5 = crucial. Forty-two of the statements the faculty evaluated still appear on the current version of the survey." Within this set of 42 statements there was a consensus among the "experts" that 13 beliefs were very important or crucial across all five of MSU's teacher preparation programs. A majority of the faculty also agreed on the direction in which each of these 13 beliefs should be shaped (i.e., that graduates should either agree or disagree with the statement). Items in this subset are described in the appendix. They are: #85, 87, 89, 91, 92, 93, 96, 100, 106, 119, 120, 122, and 127.

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* Faculty could also indicate that their interpretation of program goals did not provide an indication of how program graduates should respond. Results of this investigation are described in Byers and Freeman (1983).

According to the criteria used earlier, there were only two large
differences in how teacher candidates and their non-teaching
counterparts responded to statements in this subset, six moderate
differences, and five negligible differences. Thus, the frequency of
large differences·in beliefs "experts" consider important was relatively
small (see Table 4). It is also interesting to note that for 12 of the
13 statements, the group that was more in accord with the expert opinion
was also more willing to express that opinion. Because two of the four
statements on which teacher candidates were more willing to take a stand
are included in this subset (items 93 and 127), there is some evidence
to suggest that teacher candidates may be less hesitant to express their
opinions on issues commonly depicted as very important by the "experts."

/// Insert Table 4 about here ///

As a group, teacher candidates were somewhat more in accord with the
expert position than were their non-teaching counterparts, particularly
where there were large differences between the response patterns of the
two groups. However, there were important exceptions to this
generalization (e.g., see items 92 and 122).

Proposals for Raising Academic Standards: Recent research and
commission reports have placed efforts to raise academic standards at the
forefront of public attention. We therefore wondered if the publicity
surrounding these recommendations has had a differential effect on those who are
pursuing a career in teaching and those who are not. Seven belief statements
speak directly to this question (see appendix items 109, 110, 115, 123, 125,
128, and 142). There were large differences in how teacher candidates and their

non-teaching counterparts responded to three of these statements, moderate differences in how they responded to two statements, and negligible differences in their response to two others.

As described in Table 5, members of the non-teaching group were more likely to agree that disruptive students should be removed from regular classrooms and that teachers of upper-elementary grades should assign at least one hour of homework every night. As noted earlier, the non-teaching group was also more likely to agree that schools should hire only those teachers who have passed state or national exams. Thus, when compared with teacher candidates, non-education majors were generally more likely to support recommendations for raising academic standards that have been described in the mass media.

/// Insert Table 5 about here ///

Conclusions

A number of factors limit the external generalizability of these results. Only one teacher preparation institution was considered, the non-teacher sample was not drawn at random from the university-wide population, the MSU Educational Beliefs Inventory considered only a sample of the beliefs that may shape teacher decisions and actions, and the context in which the survey was administered to the two groups was not identical. Changes in one or more of these conditions might alter the magnitude, and perhaps even the pattern, of results.

Despite these limitations, the data provide support for two important conclusions. First, educational beliefs held by students entering teacher preparation programs are clearly different from college

students in general. Furthermore, non-education majors are more likely than beginning teacher candidates to "take a stand" on educational issues. Second, it is not possible to characterize differences between entering teacher candidates and their non-teaching counterparts in a single generalization. Overall, the two groups seemed to agree most with respect to their beliefs about students and least in their beliefs about teachers and standards raising proposals. Teacher candidates were also somewhat more likely to agree with the "expert" opinion than was true of their non-teaching counterparts. However, there were important exceptions to each of these generalizations. Thus, the results clearly indicate that efforts to influence orientations to teaching should not be based on untested assumptions about the beliefs of candidates entering specific teacher preparation programs.

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Table 1

Educational Issues/Concerns for Which Teacher Candidates
Were More Willing to Take a Stand*

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93. Teachers should establish and enforce clear cut rules for acceptable
student behavior.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	73.3	17.8	8.9	.01
Teacher Candidates	85.9	8.6	5.5	

105. The major obstacle to educational reform is teachers' lack of willingness
to change.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	37.7	39.0	23.2	.03
Teacher Candidates	38.3	29.9	31.9	

127. Because each group of students has a unique set of needs, teachers should
develop different instructional objectives for each class.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	69.2	17.8	13.0	.05
Teacher Candidates	80.9	12.1	7.0	

131. To be a good teacher, one must be an enthusiastic, life-long learner.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	87.0	7.5	5.5	.00
Teacher Candidates	97.0	0	3.0	

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* Entries are percents

Table 2

Differences 3etween Teacher Candidates and Non-Teacher Candidates
across°the Five General Categories of Educational Beliefs.

	LARGE p .01	MODERATE .01 p .33	SMALL p .33	Total # of Statements
CURRICULUM	4 (29%)	7 (50%)	3 (21%)	14
MILIEU	4 (30%)	6 (46%)	3 (23%)	13
PEDAGOGY	4 (44%)	1 (11%)	4 (44%)	9
STUDENTS	2 (14%)	6 (43%)	6 (43%)	14
TEACHERS	4 (44%)	3 (33%)	2 (22%)	9
Total	18	23	18	59

Table 3

Illustrations of Differences in Beliefs about "Teachers" *

----

110. Local school districts should hire only hose teachers who have passed state or national teacher exams.

GROUP	AGREE	NEITHER	DISAGREE	p .
Non-teachers	82.2	11.6	6.2	.00
Teacher Candidates	63.3	23.3	13.3	

131. To be a good teacher, one must be an enthusiastic, life-long learner.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	87.0	7.5	5.5	.00
Teacher Candidates	97.0	0	3.0	

136. In general, the more a teacher knows about a subject, the better able s/he is to teach the subject effectively.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	80.8	7.5	11.7	.01
Teacher Candidates	67.6	8.6	23.8	

138. The most important measure of a good teacher is that teacher's ability to enhance the academic achievement of students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	85.6	6.8	7.5	.00
Teacher Candidates	60.2	25.1	14.7	

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* Entries are percents

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Table 4

Response Patterns for Beliefs Statements "Experts" Rate as Important

ITEM#/TYPE	EXPERT OPINION	GROUP	%AGREE	%NEITHER	%DISAGREE	p*
85 / S	Disagree	NT	12.4	15.8	71.9	.17
		TC	7.8	12.1	80.0	
87 / S	Agree	NT	60.9	12.3	26.7	.04
		TC	69.4	10.3	20.3	
89 / S	Agree	NT	60.3	22.6	17.2	.40
		TC	67.3	21.3	11.4	
91 / S	Agree	NT	93.8	6.2	0	.11
		TC	92.5	5.5	2.0	
92 / M	Disagree	NT	43.2	13.0	43.9	.01
		TC	54.1	19.2	26.6	
93 / P	Agree	NT	73.3	17.8	8.9	.01
		TC	85.9	8.6	5.5	
96 / S	Agree	NT	53.4	30.8	15.8	.87
		TC	57.8	29.1	13.2	
100 / M	Agree	NT	41.8	42.5	15.7	.25
		TC	40.4	48.4	11.2	
106 / M	Agree	NT	69.0	26.2	4.9	.17
		TC	67.6	29.6	2.8	
119 / C	Agree	NT	67.8	24.7	7.5	.90
		TC	70.3	21.7	7.9	
120 / M	Agree	NT	38.4	34.9	26.7	.38
		TC	43.3	30.7	26.0	
122 / C	Agree	NT	53.4	15.8	30.9	.40
		TC	43.6	20.2	36.1	
127 / C	Agree	NT	69.2	17.8	13.0	.05
		TC	80.9	12.1	7.0	

* Probability statement derived from Chi Squared statistic (4df).

TYPE Codes: C = curriculum, M = social milieu, P = pedagogy,
S = students, and T = teachers

GROUP Codes: NT = Non-teachers   TC = Teacher Candidates

Table 5

Illustrations of Differences in Beliefs Related to
Recommendations for Raising Academic Standards *

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109. Students who disrupt class activities day after day should
be removed from regular classrooms.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	52.7	21.2	26.0	
				.00
Teacher Candidates	26.4	30.8	42.9	

110. Local school districts should hire only those teachers who
have passed state or national teacher exams.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	92.2	11.6	6.2	
				.00
Teacher Candidates	63.3	23.3	13.3	

115. Teachers in grades 4-6 should assign at least one hour of
homework every night.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	61.0	19.2	19.8	
				.00
Teacher Candidates	35.8	34.3	29.9	

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* Entries are percents

Appendix

Educational Beliefs Inventory
College of Education
Michigan State University

Please indicate the <u>extent to which you agree</u> with each of the following statements:

- KEY: (1) Strongly Agree   (4) Disagree
         (2) Agree   (5) Strongly disagree
         (3) Neither agree nor disagree

CODE for "<u>Large Differences</u>" (NT = Non-teachers more likely to agree; TC = Teacher Candidates more likely to agree).

CODE for "<u>Willingness To Take a Stand</u>" (NT = Non-teachers more willing to take a stand; TC = Teacher Candidates more willing to take a stand).

CODE for the five <u>general categories</u> of educational beliefs (C = curriculum, M = social milieu, P = pedagogy, S = students, and T = teachers).

NT   NT   S 84. A student's overall level of intelligence is determined primarily by the environment.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	55.5	15.1	29.4	.01
Teacher Candidates	44.5	21.5	34.0	

S 85. Only those students whose intelligence is well above average are capable of learning advanced science and mathematics.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	12.4	15.8	71.9	.17
Teacher Candidates	7.8	12.1	80.0	

NT   S 86. Given the opportunity to choose, high-school aged students will make viable decisions about what they need to learn.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	35.6	23.3	41.1	.70
Teacher Candidates	30.1	28.9	41.0	

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MSU Educational Beliefs Inventory (cont.)

S 87. All school-aged youngsters are capable of learning to
accept responsibility for their own actions.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	60.9	12.3	26.7	
				.04
Teacher Candidates	69.4	10.3	20.3	

S 88. Special efforts should be made to mainstream as many
handicapped children as possible into the regular
classroom.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	58.2	30.8	11.0	
				.51
Teacher Candidates	52.7	31.9	15.4	

P 89. Learning that is motivated by intrinsic rewards (e.g.,
needs and interests) is superior to that which is
motivated by extrinsic rewards (e.g., grades, special
awards, privileges).

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	60.3	22.6	17.2	
				.40
Teacher Candidates	67.3	21.3	11.4	

NT   P 90. One of the most effective ways for teachers to increase
motivation is to stimulate competition among students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	40.4	24.7	34.9	
				.00
Teacher Candidates	16.5	26.7	56.9	

S 91. Risk taking and making mistakes are essential components
of social, emotional, and intellectual development.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	93.8	6.2	0.0	
				.11
Teacher Candidates	92.5	5.5	2.0	

MSU Educational Beliefs Inventory (cont.)

TC NT M 92. A variety of face-to-face interactions with individuals
from diverse cultures will not necessarily promote
understanding and acceptance of those cultures.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	43.2	13.0	43.9	
Teacher Candidates	54.1	19.2	26.6	.01

TC TC P 93. Teachers should establish and enforce clear cut rules for
acceptable student behavior.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	73.3	17.8	8.9	
Teacher Candidates	85.9	8.6	5.5	.01

NT NT P 94. Teachers should use the same standards in evaluating the
work of all students in the class.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	59.6	13.7	26.7	
Teacher Candidates	30.9	23.0	47.0	.00

S 95. Academic success is essential to the development of a
healthy self-concept.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	56.9	25.3	17.8	
Teacher Candidates	44.7	29.8	25.5	.01

S 96. Self-concepts and levels of academic achievement of
individual students tend to conform to the expectations of
their teachers.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	53.4	30.8	15.8	
Teacher Candidates	57.8	29.1	13.2	.87

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MSU Educational Beliefs Inventory (cont.)

S 97. Within the classroom setting, nearly all students try to be fair, cooperative, and reasonable in their relations with other students and their teacher.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	32.2	20.5	47.3	
Teacher Candidates	27.6	22.8	49.6	.11

P 98. In even the most demanding subject areas, acquisition of academic knowledge is or can be made interesting and appealing to everyone.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	70.2	8.2	21.8	
Teacher Candidates	73.3	11.1	15.6	.53

NT S 99. No matter how hard they and their teachers try, some students who are placed in regular classrooms will never master all of the basic skills in reading and mathematics.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	52.1	16.4	31.5	
Teacher Candidates	48.8	20.1	31.1	.36

M 100. Schools should function as agents to change society rather than as reinforcers of the status quo.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	41.8	42.5	15.7	
Teacher Candidates	40.4	48.4	11.2	.25

TC NT M 101. Teachers should not relate to students as personal friends.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	9.6	15.8	74.6	
Teacher Candidates	21.8	22.7	55.4	.00

MSU Educational Beliefs Inventory (cont.)

S 102. Most handicapped students can be best served in special schools or centers.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	28.8	32.2	39.0	
				.28
Teacher Candidates	21.9	32.4	45.7	

NT M 103. Teachers should strive to establish an informal, student-centered classroom rather than a businesslike, teacher-centered atmosphere.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	65.0	20.5	14.4	
				.01
Teacher Candidates	56.9	33.3	9.8	

M 104. To provide equal educational opportunities, schools ust allocate more resources (personnel and finances) to some groups of students than to others (e.g., gifted, physically handicapped).

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	56.1	27.4	16.4	
				.41
Teacher Candidates	57.8	29.3	12.9	

TC T 105. The major obstacle to educational reform is teachers' lack of willingness to change.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	37.7	39.0	23.2	
				.03
Teacher Candidates	38.3	29.9	31.9	

M 106. Educational equity should be defined in terms of equal opportunities to learn rather than equal educational achievements.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	69.0	26.2	4.9	
				.17
Teacher Candidates	67.6	29.6	2.8	

MSU Educational Beliefs Inventory (cont.)

M 107. Schools can reduce racism among students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	68.4	19.9	11.7	.72
Teacher Candidates	73.6	16.9	9.5	

NT   M 108. Nearly all parents are supportive of teachers and schools.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	45.9	17.1	37.0	.00
Teacher Candidates	10.2	17.6	72.2	

NT   NT S 109. Students who disrupt class activities day after day should be removed from regular classrooms.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	52.7	21.2	26.0	.00
Teacher Candidates	26.4	30.8	42.9	

NT   NT T 110. Local-school districts should hire only those teachers who have passed state or national teacher exams.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	82.2	11.6	6.2	.00
Teacher Candidates	63.3	23.3	13.3	

NT   NT C 111. Teachers should be given considerable latitude in deciding what content to teach in their own classrooms.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	56.6	19.3	24.1	.00
Teacher Candidates	52.4	29.8	17.9	

NT   NT M 112. Most gifted students can be best served in special schools or centers.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	40.4	30.1	29.4	.00
Teacher Candidates	20.5	38.2	41.4	

MSU Educational Beliefs Inventory (cont.)

NT NT C 113. Some academic subjects offered in high school are more important than others.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	92.5	4.1	3.4	.00
Teacher Candidates	72.0	13.0	15.0	

C 114. In general, teachers should view decisions of "what to teach" as more important than decisions of "how to teach."

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	24.7	19.2	56.2	.02
Teacher Candidates	11.8	20.4	67.8	

NT NT P 115. Teachers in grades 4-6 should assign at least one hour of homework every night.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	61.0	19.2	19.8	.00
Teacher Candidates	35.8	34.3	29.9	

M 116. If a school district can finance only one local special needs program, that program should be for academically gifted students rather than for slow learners.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	4.8	17.2	77.9	.01
Teacher Candidates	3.6	17.9	78.5	

NT C 117. The ultimate criterion in deciding what to include in the curriculum should be: "Does this content have practical application in daily living?"

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	51.4	27.4	21.3	.00
Teacher Candidates	37.0	28.3	34.7	

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MSU Educational Beliefs Inventory (cont.)

NT C 118. With the exception of specialized programs, all schools in
a district ought to teach the same things in a given grade
and/or subject area.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	56.8	21.2	22.0	
				.09
Teacher Candidates	43.4	28.7	27.9	

C 119. It is a teacher's responsibility to identify, and
compensate for examples of cultural or sexual stereotyping
in textbooks and other instructional materials.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	67.8	24.7	7.5	
				.90
Teacher Candidates	70.3	21.7	7.9	

M 120. Teachers should offer special encouragement to girls to do
well in science and mathematics.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	38.4	34.9	26.7	
				.38
Teacher Candidates	43.3	30.7	26.0	

C 121. Instructional programs that seek to address
interdisciplinary problems or themes (e.g., energy
crisis, social equity) are generally superior to those
that treat subject matter as isolated disciplines.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	45.9	47.3	6.8	
				.30
Teacher Candidates	37.7	50.6	11.6	

C 122. Teachers should expect all of their students to go beyond
"minimum competency" levels that have been identified for
their courses.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	53.4	15.8	30.9	
				.40
Teacher Candidates	43.6	20.2	36.1	

MSU Educational Beliefs Inventory (cont.)

C 123. At least two-thirds of the classes students take in high
school should be required courses rather than electives.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	69.1	11.6	19.2	.64
Teacher Candidates	71.4	15.4	13.2	

TC NT C 124. At least 25% of the courses offered in a high school
should be specifically designed to make schools more
tolerable for low achieving students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	25.3	35.6	39.1	.00
Teacher Candidates	31.4	42.1	26.6	

NT T 125. Outstanding teachers should receive higher salaries than
other teachers who have the same level of seniority.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	64.4	19.9	15.7	.11
Teacher Candidates	53.9	28.6	17.6	

NT C 126. Subject-matter courses should stress the way knowledge is
developed and tested in the corresponding academic
disciplines (e.g., why statements are or are not accepted
as historical facts).

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	63.7	29.5	6.8	.10
Teacher Candidates	53.4	42.2	4.4	

TC C 127. Because each group of students has a unique set of needs,
teachers should develop different instructional objectives
for each class.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	69.2	17.8	13.0	.05
Teacher Candidates	80.9	12.1	7.0	

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MSU Educational Beliefs Inventory (cont.)

M 128. Instead of mixing students with different levels of
ability, required high school courses should have separate
classes for low achieving and high achieving students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	41.7	19.2	39.1	
Teacher Candidates	33.0	23.1	44.0	.38

C 129. Learning any subject is serious business; it doesn't have
to be fun.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	17.2	13.0	69.8	
Teacher Candidates	8.6	14.8	76.6	.14

M 130. Most students want teachers to assume an authoritative
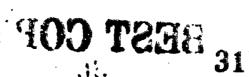stance in the classroom.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	51.4	15.8	32.9	
Teacher Candidates	60.1	18.4	21.5	.08

TC TC T 131. To be a good teacher, one must be an enthusiastic, life-
long learner.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	87.0	7.5	5.5	
Teacher Candidates	97.0	0	3.0	.00

P 132. Planning for instruction should almost always begin with a
systematic diagnosis of student needs.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	83.6	13.0	3.4	
Teacher Candidates	88.2	9.5	2.4	.63

MSU Educational Beliefs Inventory (cont.)

T 133. Teachers are obligated to provide all of their students
with the remediation necessary to achieve mastery of
essential knowledge and skills.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	74.7	21.9	3.4	.60
Teacher Candidates	74.3	20.6	5.1	

T 134. For .   mum effectiveness, teachers must understand how
they, themselves, learned the subjects they are teaching.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	78.7	13.0	8.2	.50
Teacher Candidates	74.9	16.9	8.2	

NT P 135. When making educational decisions, teachers should rely on
what "feels right" instead of "what available information
suggests is right" whenever these two sources conflict.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	41.3	33.1	25.5	.40
Teacher Candidates	39.0	38.2	22.9	

NT   T 136. In general, the more a teacher knows about a subject, the
better able s/he is to teach the subject effectively.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	80.8	7.5	11.7	.01
Teacher Candidates	67.6	8.6	23.8	

NT T 137. In general, the more courses a teacher has taken on
methods of teaching a subject matter, the better able s/he
is to teach the subject effectively.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	59.6	20.5	19.9	.30
Teacher Candidates	51.0	26.3	22.8	

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MSU Educational Beliefs Inventory (cont.)

NT NT T 138. The most important measure of a good teacher is that teacher's ability to enhance the academic achievement of students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	85.6	6.8	7.5	
Teacher Candidates	60.2	25.1	14.7	.00

NT P 139. It is fair to regular students for teachers to devote more time and attention to mainstreamed or other exceptional students.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	16.5	19.2	64.4	
Teacher Candidates	11.0	25.2	63.7	.46

P 140. When a teaching strategy works in one class, it is very likely to work in a different class with the same age group, subject, and teacher.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	50.4	22.1	27.6	
Teacher Candidates	36.0	23.6	40.4	.02

NT S 141. In all likelihood, an elementary-school student who has outstanding abilities in mathematics also has outstanding abilities in reading and social studies.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	15.1	19.9	65.1	
Teacher Candidates	8.9	25.6	65.6	.47

NT C 142. Students should be required to pass tests in reading, writing, and mathematics in order to graduate from high school.

GROUP	AGREE	NEITHER	DISAGREE	p
Non-teachers	90.4	5.5	4.1	
Teacher Candidates	80.0	14.4	5.6	.14